

Claims:

1. A method of managing a telecommunications network, comprising:  
receiving a threshold expression from a user through a user interface; and  
implementing the threshold expression within a network device while the network device is operational.
2. The method of claim 1, wherein receiving a threshold expression comprises:  
receiving a user selection of an existing threshold expression.
3. The method of claim 1, wherein receiving a threshold expression comprises:  
receiving a new threshold expression from the user.
4. The method of claim 1, where the threshold expression includes a plurality of cascaded threshold expressions.
5. The method of claim 1, wherein prior to receiving a threshold expression, the method further comprises:  
receiving a resource selection from the user through the user interface; and  
displaying a threshold dialog box, wherein the threshold expression is received through the threshold dialog box.
6. The method of claim 5, further comprising:  
displaying a plurality of existing threshold expressions to the user through the threshold dialog box.
7. The method of claim 5, further comprising:  
displaying a default threshold expression to the user through the threshold dialog box.
8. The method of claim 5, wherein implementing the threshold expression within a network device while the network device is operational comprises:

writing data from the threshold dialog box into at least one table in a configuration database within the network device; and

updating thresholding code executing within the network device with the data written into the at least one table.

9. The method of claim 8, wherein writing data from the threshold dialog box into at least one table in a configuration database within the network device comprises:  
sending the data from the threshold dialog box through a network management system (NMS) client to an NMS server; and  
writing the data into the at least one table through the NMS server.

10. The method of claim 8, wherein updating thresholding code executing within the network device with the data written into the at least one table comprises:  
sending an active query notice to each application including the thresholding code and corresponding to the selected resource.

11. A method of managing a telecommunications network, comprising:  
receiving a new threshold expression from a user through a user interface; and  
implementing the new threshold expression within a network device while the network device is operational.

12. A method of managing a telecommunications network, comprising:  
displaying a plurality of existing threshold expressions through a user interface;  
receiving a user selection of one of the existing threshold expressions; and  
implementing the selected existing threshold expression within a network device while the network device is operational.

13. A method of managing a telecommunications network, comprising:  
implementing a plurality of cascaded threshold expressions within a network device.

14. A method of managing a telecommunications network, comprising:

assigning a unique identifier to each of a plurality of resources in a network device;  
receiving a resource selection from a user through a user interface; and  
establishing a threshold evaluation for the selected resource using the unique  
identifier assigned to the selected resource.

15. The method of claim 14, wherein receiving a resource selection from a user through a  
user interface comprises:

receiving a resource selection and a resource attribute selection from the user through  
a threshold dialog box.

16. The method of claim 14, wherein the threshold evaluation is established within the  
network device and while the network device is operational.

17. The method of claim 15, wherein establishing a threshold evaluation for the selected  
resource using the unique identifier assigned to the selected resource comprises:

receiving a threshold expression from the user through the threshold dialog box;  
writing data, including the unique identifier assigned to the selected resource and the  
threshold expression, from the threshold dialog box into at least one table in a  
configuration database within the network device; and

updating thresholding code executing within the network device with the data written  
into the at least one table.

18. The method of claim 17, wherein receiving a threshold expression from the user  
through the threshold dialog box comprises:

receiving a user selection of an existing threshold expression.

19. The method of claim 17, wherein receiving a threshold expression from the user  
through the threshold dialog box comprises:

receiving a new threshold expression from the user.

20. The method of claim 17, wherein writing data from the threshold dialog box into at least one table in a configuration database within the network device comprises: sending the data from the threshold dialog box through a network management system (NMS) client to an NMS server; and writing the data into the at least one table through the NMS server.

21. The method of claim 17, wherein updating thresholding code executing within the network device with the data written into the at least one table comprises: sending an active query notice to each application including the thresholding code and corresponding to the selected resource.

22. A method of managing a telecommunications network, comprising: detecting a threshold event in an application within a network device; notifying thresholding code of the threshold event; and responding to the threshold event in accordance with an action defined within the thresholding code.

23. The method of claim 22, wherein detecting a threshold event in an application within a network device comprises: monitoring a resource attribute continuously; and comparing the resource attribute against a threshold expression provided to the application by the thresholding code.

24. The method of claim 22, wherein responding to the threshold event in accordance with an action defined within the thresholding code comprises: notifying a network manager of the threshold event.

25. The method of claim 24, wherein notifying a network manager of the threshold event comprises: sending a notice to network management system software external to the network device.

26. The method of claim 24, wherein notifying a network manager of the threshold event comprises:

sending an electronic mail message to the network manager.

27. The method of claim 24, wherein notifying a network manager of the threshold event comprises:

sending a page to the network manager.

28. The method of claim 22, wherein responding to the threshold event in accordance with an action defined within the thresholding code comprises:

logging the threshold event.